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X-ray Optics for the International X-ray Observatory

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IXO requires a mirror assembly with unprecedented characteristics: 5" HPD angular resolution, 2.5 m^2 effective area at 1 keV, and a mass less than 2,000 kg. We have been developing a set of techniques that will meet all these requirements. It includes the slumping of thin glass sheets into genuine parabolic and hyperbolic mirror segments, precise alignment and integration of these mirror segments into modules that will in turn be further integrated into a flight mirror assembly. We have been making rapid progress in all aspects of this development. In this paper we report the development status and our plan to bring this technology to TRL-6.